PATENT COOPERATION TREATY

PCT

REC'D 1 2 SEP 2005

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY PCT

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416		
International application No. PCT/GB2004/004152	International filing date (day/month) 29.09.2004	(year) Priority date (day/month/year) 04.10.2003		
International Patent Classification (IPC) or n G06F9/46	ational classification and IPC			
Applicant SYMBIAN SOFTWARE LIMITED e	t al.	·		
Authority under Article 35 and tra 2. This REPORT consists of a total	nsmitted to the applicant according of 5 sheets, including this cover s	olished by this International Preliminary Examining g to Article 36.		
3. This report is also accompanied by ANNEXES, comprising:				
a. \square sent to the applicant and to the International Bureau) a total of sheets, as follows:				
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).				
sheets which superse beyond the disclosure Supplemental Box.	de earlier sheets, but which this A in the international application as	uthority considers contain an amendment that goes ifiled, as indicated in item 4 of Box No. I and the		
sequence listing and/or tal	Bureau only) a total of (indicate typoles related thereto, in computer rules tight in the August 1992 of the	pe and number of electronic carrier(s)) , containing a eadable form only, as indicated in the Supplemental dministrative Instructions).		
4. This report contains indications re	elating to the following items:			
☑ Box No. I Basis of the op	nion			
☐ Box No. II Priority				
☐ Box No. III Non-establishm	ent of opinion with regard to nove	elty, inventive step and industrial applicability		
Box No. IV Lack of unity of				
☐ Box No. V Reasoned state applicability; cit	ement under Article 35(2) with reg ations and explanations supportin	ard to novelty, inventive step or industrial g such statement		
☐ Box No. VI Certain docume	ents cited	•		
☐ Box No. VII Certain defects	in the international application	÷		
☐ Box No. VIII Certain observa	ations on the international applica	tion		
Date of submission of the demand	Date of c	ompletion of this report		
27.07.2005		2005		
Name and mailing address of the International		ed Officer		
preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d		T ()		
Fax: +49 89 2399 - 4465		ıe No. +49 89 2399-		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2004/004152

		Box No. I Basis of the report		
	1.	With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.		
		This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of: international search (under Rules 12.3 and 23.1(b))		
	 □ publication of the international application (under Rule 12.4) □ international preliminary examination (under Rules 55.2 and/or 55.3) 			
	2.	With regard to the elements* of the international application, this report is based on <i>(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):</i>		
		Description, Pages		
: ··		1-10 as originally filed		
		Claims, Numbers 1-10 as originally filed		
		☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing		
. ;	3.	 □ The amendments have resulted in the cancellation of: □ the description, pages □ the claims, Nos. □ the drawings, sheets/figs □ the sequence listing (specify): □ any table(s) related to sequence listing (specify): 		
4		☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). ☐ the description, pages ☐ the claims, Nos. ☐ the drawings, sheets/figs ☐ the sequence listing (specify): ☐ any table(s) related to sequence listing (specify):		
		* If item 4 applies, some or all of these sheets may be marked "superseded."		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2004/004152

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

No: Claims

Inventive step (IS)

Yes: Claims

No: Claims

2-10

1

Industrial applicability (IA)

Yes: Claims

1-10

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

Used Documents

1. Reference is made to the following documents:

D1: US-A-5 963 982 (GOLDMAN PHILLIP Y) 5 October 1999 (1999-10-05)

D2: CAVALIERI S ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "Exploring real-time features of java VM" IECON-2002. PROCEEDINGS OF THE 28TH. ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY. SEVILLA, SPAIN, NOV. 5 - 8. 2002, ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY, NEW YORK, NY: IEEE, US, vol. Vol. 1 OF 4. CONF. 28, 5 November 2002 (2002-11-05), pages 2538-2543, XP010633111 ISBN: 0-7803-7474-6

D3: DE 100 40 241 A (GIESECKE & DEVRIENT GMBH) 22 March 2001 (2001-03-22)

2. The person skilled in the art is aware of documents D1 to D3 because they are from the same technical field as the present application, namely memory defragmentation.

Objections regarding Novelty

- 3. Document D1 is regarded as closest prior art. It discloses in the original wording of independent claim 1 (reference to the closest prior art is made in square brackets; the original wording of the claim is set in italic font; features not explicitly disclosed in the prior art are set strikeout) a method of managing memory resource in a computing device, the method comprising using a thread of operating system code [D1, col. 4, lines 35 to 42; discloses a "defragmentation process" which is obviously part of the system's operating system; a thread and a process are the same in the context of the present application] which is arranged to run when no other thread is ready to run to initiate defragmentation of data held in memory resource in the computing device [D1, col. 3, lines 46 to 56 and Fig. 2, system running idle implies that no thread is running].
- 4. Therefore, the subject-matter of claim 1 is not new and thus this claim is not allowable, Article 33 (2) PCT. Should the applicant be able to identify minor differences or amend the claim by such differences which overcome the above novelty

April 18 Carrier Barrell

-7.

objection, then still the claim cannot be considered to be allowable for lack of inventive step, Article 33 (3) PCT.

Objections regarding Inventive Step

- 5. The subject matter of dependent claims 2 to 8 does not seem to involve an inventive step in the sense of Article 33(3)PCT because it appears that above-mentioned dependent claims add only features which are merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances and in particular in the light of documents D1 to D3, without the exercise of inventive skill, in order to solve the problems posed.
- 6. The objections raised for claims 1 to 8 apply, mutatis (1) with the mutandis, to claim 9 and 10.

Concluding Remarks

- 7. The applicant may file a new set of claims clarifying the subject-matter protection is sought for.
- 8. An explanation relating to the problem solved by the features distinguishing the new independent claims from the present independent claims and the prior art as well as relating to the essence of said distinguishing features for obtaining the solution should be given.
- 9. Care should be taken that the new set of claims is supported by the description to comply with Article 34(2)(b) PCT, i.e. the amendments do not go beyond the disclosure in the international application as filed. Therefore, the applicant is requested to provide references to supporting passages in the description for the amended claims. Failure to do so may result in undiscovered supporting passages and consequently, the corresponding amendments have to be regarded violating Article 34(2)(b) PCT.